

Appln. Serial No. 09/716,316  
Amendment Dated January 4, 2006  
Reply to Office Action Mailed November 4, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1           1. – 2. (Cancelled)

1           3.       (Currently Amended) The method of claim [[1]] 10, further comprising allocating  
2 the first channel portion back to the first mobile station in response to the request.

1           4.       (Previously Presented) The method of claim 10, wherein detecting that the first  
2 mobile station has stopped transmitting traffic comprises detecting that the first mobile station  
3 has entered a discontinuous transmission mode.

1           5.       (Original) The method of claim 4, wherein detecting that the first mobile station  
2 has entered discontinuous transmission mode comprises receiving a predetermined message  
3 indicating that the mobile station is entering the discontinuous transmission mode.

1           6.       (Previously Presented) The method of claim 10, wherein multiplexing the second  
2 mobile station traffic comprises receiving the second mobile station traffic on a predetermined  
3 time slot of a frame, the first channel portion comprising the predetermined time slot.

1           7.       (Cancelled)

1           8.       (Previously Presented) The method of claim 10, wherein receiving the request  
2 comprises receiving a request that is one burst in length.

1           9.       (Cancelled)

Appl. Serial No. 09/716,316  
Amendment Dated January 4, 2006  
Reply to Office Action Mailed November 4, 2005

1           10.   (Previously Presented) A method of communicating in a mobile communications  
2 system, comprising:

3                 detecting that a first mobile station has stopped transmitting traffic containing  
4 real-time, interactive data on a first channel portion;

5                 multiplexing traffic from a second mobile station on the first channel portion  
6 during a period in which the first mobile station is not transmitting traffic;

7                 receiving a request from the first mobile station for the channel portion, the  
8 request indicating that the first mobile station is about to start transmitting traffic,

9                 wherein receiving the request comprises receiving the request during a period in  
10 which the second mobile station is transmitting traffic in the first channel portion; and

11                extracting the request from a combined signal including the request and the traffic  
12 from the second mobile station.

1           11.   (Currently Amended) The method of claim 8, wherein receiving the request  
2 comprises receiving a request that is based on an identifier associated with the first mobile  
3 station.

1           12.   (Original) The method of claim 11, wherein the identifier comprises a temporary  
2 flow identifier.

1           13. – 14. (Cancelled)

1           15.   (Previously Presented) The method of claim 10, further comprising sending an  
2 assignment message to the first mobile station in response to the request.

1           16.   (Original) The method of claim 15, wherein sending the assignment message  
2 comprises sending a one-burst assignment message.

1           17.   (Cancelled)

Appln. Serial No. 09/716,316  
Amendment Dated January 4, 2006  
Reply to Office Action Mailed November 4, 2005

1           18.     (Currently Amended) The method of claim ~~[[1]]~~ 10, wherein detecting that the  
2 first mobile station has stopped transmitting traffic comprises receiving a General Packet Radio  
3 Service SID\_FIRST indication.

1           19.     (Previously Presented) The method of claim 18, wherein receiving the request  
2 comprises receiving a Real-Time Fast Associated Control Channel resource request message  
3 from the first mobile station for re-assignment of the first channel portion.

1           20.     (Previously Presented) The method of claim 19, further comprising sending a  
2 Real-Time Fast Associated Control Channel assignment message to the first mobile station to  
3 assign the first channel portion back to the first mobile station.

1           21.     (Cancelled)

1           22.     (Currently Amended) The system of claim ~~[[21]]~~ 31, wherein the wireless  
2 channel portion includes a time slot of a frame having plural time slots.

1           23.     (Previously Presented) The system of claim 31, further comprising a multiplexer  
2 to receive traffic from the first mobile station when the first mobile station is in an active mode  
3 and to receive traffic from the other mobile station when the first mobile station is in the  
4 discontinuous transmission mode.

1           24.     (Cancelled)

1           25.     (Previously Presented) The system of claim 31, wherein the request comprises a  
2 request carried in a General Packet Radio Service Real-Time Fast Associated Control Channel.

1           26.     (Original) The system of claim 25, wherein the request comprises a Real-Time  
2 Fast Associated Control Channel resource request message.

Appl. Serial No. 09/716,316  
Amendment Dated January 4, 2006  
Reply to Office Action Mailed November 4, 2005

1           27.     (Previously Presented) The system of claim 31, wherein the controller is adapted  
2     to further send an assignment message to the first mobile station in response to the request.

1           28.     (Currently Amended) The system of claim [[21]] 31, wherein the request has a  
2     length of one time slot of a frame.

1           29.     (Previously Presented) The system of claim 31, wherein the request is based on  
2     an identifier associated with the first mobile station.

1           30.     (Previously Presented) The system of claim 29, wherein the request contains a  
2     coded version of the identifier associated with the first mobile station.

1           31.     (Currently Amended) A system for use in a mobile communications system,  
2     comprising:  
3                 a wireless interface adapted to communicate over a wireless channel portion with  
4     a first mobile station; and  
5                 a controller adapted to detect if the first mobile station has entered into a  
6     discontinuous transmission mode and to allocate the wireless channel portion to another mobile  
7     station when the first mobile station is in the discontinuous transmission mode,  
8                 wherein the controller is adapted to detect a request from the first mobile station  
9     for re-allocation of the channel portion back to the first mobile station,  
10                wherein the controller is adapted to receive the request during [[at]] the same time  
11     the controller is receiving traffic from the other mobile station,  
12                wherein the controller comprises a joint detector to extract the request from a  
13     combined message including the request and the traffic from the other mobile station.

1           32. – 39. (Cancelled)

1           40.     (Previously Presented) The system of claim 52, wherein the channel portion  
2     comprises a time slot of a frame having plural time slots.

Appln. Serial No. 09/716,316  
Amendment Dated January 4, 2006  
Reply to Office Action Mailed November 4, 2005

1           41.     (Previously Presented) The system of claim 52, wherein the request comprises a  
2     General Packet Radio Service Real-Time Fast Associated Control Channel message.

1           42. – 43. (Cancelled)

1           44.     (Previously Presented) The article of claim 45, wherein the channel portion  
2     comprises a time slot of a frame having plural time slots.

1           45.     (Previously Presented) An article comprising at least one storage medium  
2     containing instructions for communicating in a mobile communications network, the instructions  
3     when executed causing a system to:  
4                 detect a first mobile station entering discontinuous transmission mode, the first  
5     mobile station assigned a channel portion to communicate traffic;  
6                 multiplex traffic from a second mobile station onto the channel portion during a  
7     time period in which the first mobile station is in discontinuous transmission mode;  
8                 receive a request from the first mobile station for a re-allocation of the channel  
9     portion;  
10                receive the request from the first mobile station that overlaps traffic from the  
11    second mobile station; and  
12                extract the request from a combined signal including the request and the traffic  
13    from the second mobile station.

1           46. – 51. (Cancelled)

Appl. Serial No. 09/716,316  
Amendment Dated January 4, 2006  
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1           52.   (Previously Presented) A system for use in a mobile communications system,  
2 comprising:  
3               a wireless interface adapted to communicate over a wireless channel portion with  
4 one of a first mobile station and a second mobile station; and  
5               a controller adapted to allocate the channel portion to the second mobile station  
6 when the first mobile station is silent and to receive a request from the first mobile station for  
7 allocation of the channel portion while concurrently receiving traffic from the second mobile  
8 station, wherein the received request overlaps the traffic from the second mobile station,  
9               wherein the controller comprises a detector to extract the request from a combined  
10 signal including the request and the traffic from the second mobile station.